

REMARKS

By the above amendments, claims 15, 17, 19, and 26 have been amended. Additionally, accompanying this Amendment is a Declaration of Roland Hand In view of these actions and the following remarks, further consideration of this application is respectfully requested.

Claims 15, 17, 19 and 26 stand rejected for indefiniteness under 35 U.S.C. §112, second paragraph. Claims 15 and 17 have been amended to conform their preamble with that of claim 1 from which they depend. Additionally, claim 19 has been amended to clarify the clauses considered indefinite by the Examiner and the misspelling in claim 26 has been corrected. Thus, these claims should now be clear and definite and this rejection should be withdrawn as a result.

With regard to the provisional obviousness type double patenting rejection of claim 4 over claim 21 of application No. 10/204,545, it is again pointed out that application No. 10/204,545 does not claim having the acrylate foam of the carrier element forms the second self-sticking adhesive surface, and there is nothing which is claimed that would render such obvious. Furthermore, this rejection fails to take into account that claim 4 is dependent on claim 1 which the Examiner has not found to be subject to this rejection. If the subject matter of claim 1 is not obvious over the claims of application No. 10/204,545, it is not seen how claim 4 which incorporates this subject matter can be obvious. Accordingly, it is submitted that there is not justification for retaining of an obviousness type double patenting rejection of claim 4 based upon claim 21 of application No. 10/204,545, so that withdrawal thereof is requested.

Claims 1, 3, 4, 7-11, 15, 17, and 19-26 stand rejected under 35 USC § 103 as being unpatentable over the DE '399 German reference as translated in the Hahn et al. U.S. patent either by itself or in further combination with either the Wacker publication or the Japanese '441 reference. This rejection is inappropriate for the following reasons.

In maintaining his rejection based on the German '399, the Examiner once again has failed to address the cross-linking aspect of the claimed invention which is a key distinction. In this regard, the Examiner's own arguments relative to the obviousness of using a primer to join silicone cement to an acrylate foam would lead to the conclusion that the cross-linking in accordance with the invention is unnecessary. Furthermore, the Examiner's attention is directed to the accompanying Declaration of Roland Hahn, a co-inventor named in the cited

German '399 reference and corresponding U.S. Patent as well as the inventor of the present application. In his declaration, he states that "[t]here is no recognition of a problem associated with the soft-elastic connection produced by the silicone adhesive used in DE '399 outside of" the present application (paragraph 2) and that "[t]here is no suggestion that the unrecognized problem of DE '399 could be solved by the use of an intermediate adhesive layer and a cross-linked silicone cement outside of" the present application. The Examiner's attention is particularly directed to paragraph 5 in which Mr. Hahn establishes that prior to the present invention use of the known Wacker Chemie material for a silicone adhesive layer of a seal of the type described in DE '399 was unknown prior to my invention, *particularly* for such an adhesive *in a cross-linked state*" (emphasis added) and that "DE '399 does not expressly teach or indirectly suggest the provision of an intermediate adhesion layer (adhesive layer 32 of My Application) between the carrier 14 and the adhesive surface 18 nor is any need for such apparent from the disclosure of DE '399."

Still further, the Examiner is requested to examine paragraph 8 of the Declaration where it is explained why the Examiner's statement the presence of a crosslinked silicone cement is inherent in that "at least some crosslinking is believed to be present in such adhesives" is not based on any factual evidence and is not correct. Mr. Hahn also points out in that paragraph that the Examiner has failed to establish a reason or need for crosslinking of the silicone adhesive to control the amount of adhesion based upon the disclosure of DE '399, and that "it was not apparent to either myself or my co-inventor that a reason existed to either crosslink the silicone adhesive or to use an intermediate adhesive or primer between the carrier and adhesive," and that it was not until he later when he determined the existence of a problem that he found crosslinking of the silicone adhesive to be the solution to the problem.

Also, with regard to the use of a primer, Mr. Hahn states that:

...the description of Primer G 718 in the Wacker publication would not lead one to use such a primer in the context of DE '399 (particularly if the silicone adhesive were to be cross-linked) since this primer is described as being for use to "improve the adhesion of ELASTOSIL® RTV-1 silicone rubbers to some plastics and especially to metals." That is, the G 718 primer is not taught for use with silicone adhesives that are to be adhered to a flexible carrier strip (which is unlike a metal or comparable plastics), and it is only in conjunction with the invention of My Application that I determined that such a material was suitable for use as the claimed intermediate adhesive. In fact, all of the primers in the Wacker publication are described as being for use with ELASTOSIL® RTV-1 silicone rubbers, not cross-linked silicone cement.

Thus, the basis for the Examiner's conclusion with regard to the use of a primer has been established as being based on an incorrect assessment of the Wacker publication.

In view of the foregoing and the evidence presented by way of the accompanying Declaration, the rejection under § 103 should be withdrawn and such is hereby requested.

In view of the foregoing, it is submitted that the present application is in condition for allowance and a notice to that effect is respectfully requested. However, if the Examiner deems that any issue remains after considering this response, he is invited to call the undersigned

Respectfully submitted,



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE PATENT APPLICATION OF : Confirmation No. 7556
Roland HAHN : Examiner: Daniel R. Zirker
Application No. 10/601,702 : Group Art Unit: 1771
Filed: June 6, 2003 :
For: ADHESIVE TAPE AND PROCESS FOR :
PRODUCING AND FOR ATTACHING :
A SEALING ELEMENT TO AN :
APPLICATION SITE :

DECLARATION OF ROLAND HAHN

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, Roland Hahn, declare that:

1. I am the same Roland Hahn that is the inventor of the above captioned patent application (hereafter, "My Application") and the same Roland Hahn that is a co-inventor of invention described in German application DE 199 52 399 A1 cited by the Examiner against My Application (hereafter, DE '399), which corresponds to U.S. Patent 6,485,030.

2. As stated in paragraph [0003] of My Application, DE '399:

discloses a silicone seal which can be attached by means of a liquid silicone cement to an adhesive tape which acts has a self-sticking, outer adhesive surface which is covered initially by a protective film and which is used for attachment of the seal to an application site after removing the protective film. The several hours of setting time of the liquid silicone cement complicates controlled use in mass production designed for rapid throughput. Another disadvantage of this silicone seal is that, by using liquid silicone cement, a soft-elastic connection between the carrier element and the seal body of the seal element takes place, since the liquid silicone cement, as a tacky adhesive, leads to a reversible adhesive connection which under certain loading conditions adversely affects the sealing action, for example, when used in sliding vehicle roofs. The soft-elastic connection can cause displacement up to

detachment of the sealing body so that proper operation of the motor vehicle sliding roof is not ensured.

There is no recognition of a problem associated with the soft-elastic connection produced by the silicone adhesive used in DE '399 outside of My Application.

3. The invention of My Application is directed to solving of this problem and as stated in paragraph [0013] thereof:

The invention overcomes a prejudice in the field according to which the advantages of a silicone seal cannot be combined with simple mounting using the self-sticking adhesive surface which is provided on the seal. By using an adhesive layer and a crosslinking or completely vulcanizing silicone cement, it is surprisingly possible to produce a positive and non-positive connection between the sealing body and the adhesive tape as well as the application site, which does not have soft-elastic properties and which likewise does not require any additional setting times.

There is no suggestion that the unrecognized problem of DE '399 could be solved by the use of an intermediate adhesive layer and a cross-linked silicone cement outside of My Application.

4. The solution in accordance with my invention noted above is embodied in the claims of My Application by the recitation of a:

a carrier element,

first and second self-sticking adhesive surfaces, one on each side of the carrier element, the first adhesive surface being for attachment to the sealing element and being formed at least partially of a silicone cement, and the second self-sticking adhesive surface being for attachment to an application site, and

an intermediate adhesion layer between the first self-sticking adhesive surface and the carrier element, the intermediate adhesion layer being affixed to the carrier element to impart adhesion between the carrier element and the first adhesive surface with said silicone cement cross-linked.

5. While I disclose in paragraph [0038] of My Application that the "material E 415 from Wacker Chemie is well suited as the silicone cement for producing the adhesive surface 18" of the invention of My Application, use of such a material for a silicone adhesive layer of a seal of the type described in DE '399 was unknown prior to my invention, particularly for such an adhesive in a cross-linked state. Likewise, while I also disclose in

paragraph [0038] of My Application that the material G 718 from Wacker Chemie is suitable for use as the intermediate adhesive 32 of the invention of My Application, use of such a material for a seal of the type described in DE '399, based on my knowledge and experience, was unknown prior to the invention of My Application. In this regard, the adhesive disclosed in DE '399 for adhesive surface 18 (which corresponds to the claimed "first adhesive surface" which bears the same reference number 18 in My Application) is a silicone cement for which no express teaching or indirect suggestion is made that the silicone cement should be in a cross-linked state. Furthermore, DE '399 does not expressly teach or indirectly suggest the provision of an intermediate adhesion layer (adhesive layer 32 of My Application) between the carrier 14 and the adhesive surface 18 nor is any need for such apparent from the disclosure of DE '399. Moreover, the description of Primer G 718 in the Wacker publication would not lead one to use such a primer in the context of DE '399 (particularly if the silicone adhesive were to be cross-linked) since this primer is described as being for use to "improve the adhesion of ELASTOSIL® RTV-1 silicone rubbers to some plastics and especially to metals." That is, the G 718 primer is not taught for use with silicone adhesives that are to be adhered to a flexible carrier strip (which is unlike a metal or comparable plastics), and it is only in conjunction with the invention of My Application that I determined that such a material was suitable for use as the claimed intermediate adhesive. In fact, all of the primers in the Wacker publication are described as being for use with ELASTOSIL® RTV-1 silicone rubbers, not cross-linked silicone cement.

6. The Japanese '441 reference is even less relevant than the Wacker publication because, it teaches use of a primer for a different type of material, and there is nothing about the complex process taught in this Japanese reference for treating a low-density polyurethane foam tape by corona discharge and then applying a coating of a zirconium acetylacetoneate prime that would have been considered by one of ordinary skill in the seal art as having any relevance to a cross-linked silicone cement or the use of a primer with such a cement in the context of the present invention or that of the seal of DE '399.

7. The comments of the Examiner in section 3 on page 2 of his Office Action of January 30, 2007, fail to take into consideration what is disclosed by DE '399 and appears to

rely on what I discovered to justify his statements. That is, the statement that "an intermediate adhesion layer would be utilized in circumstance where two substrates could not be either effectively or easily ... adhered together" assumes recognition of a problem that is not recognized to exist relative to DE '399, i.e., there is no indication that the silicone adhesive used in DE '399 does not effectively and easily adhere the seal body 12 to the carrier 14, and since no curing or cross-linking is taught, use of a primer in a cross-linking context has no applicability. Furthermore, the general statement quoted by the Examiner from the Wacker publication fails to take into consideration that this statement was made in the context of primers intended for use with ELASTOSIL® RTV-1 silicone rubbers, not to joining of a silicone adhesive to a flexible plastic carrier. Put another way, while generically true, the statement does not make it obvious to use a primer in the case of the DE '399 product where no problems of adhesion are at issue.

8. The statement made by the Examiner in item 3 on page 3 of his Office Action of April 21, 2006, that "[w]ith respect to the presence of a crosslinked silicone cement this is believed to be both inherent, as at least some crosslinking is believed to be present in such adhesives" is not based on any factual evidence and is not correct. One of ordinary skill in the seal and adhesive arts would view the term "crosslinked" as applied to a silicone adhesive layer as meaning that a specific treatment (e.g., chemical, pressure or thermal) has been performed on the adhesive layer as a whole so as to set the adhesive of the entire layer, and it would not be viewed as something that is either "inherently" present in a silicone adhesive or that nominally occurs incidentally. Such is reflected several places in the specification of my application by my equating of cross-linking with "complete vulcanization" (see, e.g., paragraph [0008] & [0009] on page 3 and paragraphs [0013] & [0018] on page 4). Likewise, the Examiner's further statement in the same sentence that "it is well known that controlling the amount of adhesion in an adhesive can easily be done by controlling the amount of crosslinking present therein" fails to take into consideration that no reason or need for crosslinking of the silicone adhesive to control the amount of adhesion is apparent from the disclosure of DE '399, i.e., a need to eliminate the soft-elastic properties of the uncross-linked silicone adhesive of DE '399. In fact, as a co-inventor of DE '399 I can unequivocally state that it was not apparent to either myself or my co-inventor that a reason existed to either

crosslink the silicone adhesive or to use an intermediate adhesive or primer between the carrier and adhesive, and it was only later on that I determined the existence of the above referenced problem and the solution to the problem presented in My Application.

All statements made herein of my own knowledge are true, all statements made herein on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and may jeopardize the validity of the application or any patent issuing thereon.

By: Roland Hahn
Roland Hahn